SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR OREGON

AS OF

FEBRUARY 1, 1944

* * *

Issued February 9, 1944

by

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and

Oregon Agricultural Experiment Station, Medford Branch
cooperating

* * * * *

Data included in this report were obtained by the agencies listed above, in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations. 1/

* * *

February 1, 1944

WATER SUPPLY OUTLOOK

Oregon's 1944 water supply prospect, as of this mid-winter date, is not good. Irrigated lands now having in sight "good" to "fair" water supplies are chiefly those served from reservoirs containing substantial "hold-over" from bountiful 1943 run-off.

(For details see page 2 and map preceding page 8)

Mountain snow cover is now considerably below average on nearly all snow courses. Above-normal snow additions during February and March are needed if normal stream flow is to be produced. If snowfall during the next two months is normal or less, generally below-normal stream flow during the irrigation season is expected.

Watershed soils not covered by snow, or covered only recently by shallow snow, are frozen to greater than usual depth, particularly in Eastern Oregon. This condition may favor relatively greater reservoir storage from rapid run-off, but is considered unfavorable to sustained run-off for lands depending on unregulated stream flow.

Total water stored in all reservoirs is 20 percent less than of similar date last year, but is greater than of this date in 1941 or 1940. The number of reservoirs half full or better is greater than in 1942, 1941 or 1940, but is slightly less than last year.

Precipitation accumulated in Oregon valleys since October 1 is considerably below normal, and is the least for this 4-months' period of any year since 1937.

Explanation of Water Forecast Map Preceding Page 8

Some streams provide at normal low flow a water supply greater than the irrigation demand. Others normally provide at low flow an inadequate supply for irrigation requirements. Therefore, in preparing this water forecast map for the important irrigated sections of Oregon, an effort has been made to define the relationship between forecasted water supply and customary irrigation demand, rather than to define forecasted run-off in terms of acre feet or as percentage of average.

Terms describing forecasted water supply are based on local definition. A seasonal irrigation supply considered good in one locality of more or less chronic shortage might be considered poor in another area accustomed to plenty of water. The map key, therefore, indicates whether or not the prospective water supply in each locality will be, by local standards, deficient, fair (generally adequate but somewhat short late in the season), or good (plenty) for crop production on the usual acreage. Irrigated lands in areas shaded green or orange are for the most part served from storage reservoirs.

The following preliminary run-off forecasts are based on present mountain snow cover and on the assumption that average February and March increase of snow cover will occur. Greater or less than average increase in mountain snow cover during the next two months will correspondingly modify these estimates:

Area	Stream	Apr.-Sept., incl., Stream Flow Expectancy as of Feb. 1, 1944: As % of Avg. 1929-43		As % of Last Year
Northcentral	Mountain snow cover below average			
Umatilla-Walla Walla	Umatilla R. nr. Gibbon at Sta. 2236	66	e	a
	Umatilla R. at Pendleton (223)	78	b	a
Northeastern	Grande Ronde R. nr. LaGrande (1816)	55	b	a
	East Fk. Wallowa R. (1822 + 1823)	77		58
	Hurricane Cr. near Joseph (1814)	88	b	a
	Lostine R. near Lostine (1810)	88	b	a
	Bear Creek near Wallowa (1815)	85	b	a
Eastern	N. Fk. Malheur R. at Beulah (139)	45		19
	Malheur R. near Drewsey (1320)	45	b	a
	Strawberry Cr. nr. Prairie City (2434)	70	d	a
Harney Basin	Mountain snow cover below average			
Central	Tumalo Cr. & C. S. Canal (338a)	80		53
	Squaw Cr. near Sisters (335)	80		63
	Odell Cr. near Crescent (3212)	85	f	56
	Crescent Lake Net Inflow	63		24
	Ochoco Reservoir Minimum Net Inflow	(Not less than) 7	(Not less than)	3
Southcentral	Mountain snow cover below average			
Klamath Basin	Upper Klamath Lake Net Inflow	102		47
Southern	Rogue River above Prospect (722)	75		56
	Fourmile Lake Net Inflow	75	b	a
	N. Fk. Little Butte Cr. below Fish Lake (Natural flow) (7230)	75	b	a
	Hyatt Prairie Reservoir Net Inflow	85	c	a
	Applegate R. near Ruch (7212)	85	b	a
	N. Umpqua R. below Lake Cr. (7419)	85		58
	N. Umpqua R. at Toketee Falls (7414)	83		59
	Clearwater R. above Trap Cr. (7420)	87		66
Willamette Valley	McKenzie R. at McKenzie Bridge (534)	84		70
	McKenzie R. near Vida (535)	80		64
	Mid. Fk. Willam. R. at Eula (512)	68	b	a

a - 1943 Discharge record not available.
b - 1929-42
c - 1929-41
d - 1931-42
e - 1933-42
f - 1934-43

COMPARISON OF SNOW COVER AS OF FEBRUARY FIRST WITH THAT OF PREVIOUS YEARS

Snow-stored water now present above 5,000 feet:

As percent of that present one month ago	--	192
As percent of that present one year ago	--	30
As percent of that present two years ago	--	71
As percent of average	--	57

Snow-stored water now present from 2,000-5,000 feet:

As percent of that present one month ago	--	244
As percent of that present one year ago	--	22
As percent of that present two years ago	--	80
As percent of average	--	51

Snow water content on 100 percent of all measured courses is less than at this time in 1943, and in 80 percent of the comparisons, is less than on about February 1 of 1942. Snow water content on 99 percent of all measured courses is less than average.

Given below is a tabulation showing inches snow-stored water for the February 1 record period on eleven scattered snow courses of greatest age. The inferior snow pack of February 1, 1944, as compared with that of the same date in most earlier years is evident.

Snow Water Content (Inches) as of About February 1

River Basin	Deschutes-Willamette	Umatilla	Walla-Walla	Wallowa	Burnt River	Malheur-John Day	Crooked	Goose Lake	Klamath	Klamath-Rogue	Umpqua
Snow Course / Year	Cascade Summit	Meacham	Toll-gate	Aneroid Lake	Tipton	Blue Mt. Springs	Ochoco Mdws.	Quartz Mtn.	Chemult	Annie Spring	Diamond Lake
1929	23.2	9.2	-	7.7	10.1	-	4.3	4.0	6.5	20.3	8.9
1930	10.3	3.5	-	15.2	3.8	4.4	3.8	6.0	4.6	19.5	5.5
1931	11.2	6.2	14.1	13.0	8.2	3.6	5.6	4.0	6.1	N.R.	8.4*
1932	28.0	9.3	23.7	28.4	8.7	13.7	10.0	6.9	12.8	22.3	26.2
1933	27.8	5.6	N.R.	26.0	N.R.	13.0	6.5	5.9	11.1	N.R.	27.5
1934	N.R.	0.5	12.5	N.R.	N.R.	N.R.	N.R.	1.0	T	N.R.	5.6
1935	28.1	5.6	18.2	21.2	N.R.	11.0	9.4	7.7	8.6	33.4	7.6
1936	N.R.	11.2	27.8	17.3	N.R.	13.4	13.5	11.3	9.4	37.2	12.0
1937	25.1	9.3	16.6	9.3	N.R.	8.2	6.1	4.1	7.0	N.R.	15.6
1938	8.8	2.1	9.7	21.0	4.5	9.0	N.R.	N.R.	4.1	22.8	7.9
1939	17.4	4.0	14.1	13.4	6.8	7.4	5.7	2.2	5.3	26.5	12.2
1940	6.3	2.3	5.9	16.5	3.1	3.6	1.8	T	5.5	20.5	3.1
1941	13.5	4.0	14.1	19.3	8.7	13.4	8.6	5.0	8.1	36.8	10.5
1942	10.6	3.5	7.0	22.4	4.8	6.8	5.9	3.8	6.3	18.1	6.8
1943	37.0	10.6	28.8	28.6	13.4	23.0	13.7	9.4	20.5	40.8	29.8
1944	7.3	3.1	8.4	12.2	3.8	4.0	2.7	2.3	4.2	14.3	7.4

Least February 1 water content is underscored. N.R. - No report T - Trace * (Feb.15)

STATUS OF SNOW COVER AS OF FEBRUARY FIRST (Cont'd.)

Summary of Snow Survey Data
by Tributary Drainages as of About February First

Tributary Drainage	Number Of Snow Courses Averaged	Average Water Depth in Snow Cover (Inches) 1944	1943	1942	Avg. Past Yrs. of Record	Yrs. of Record	1944 Snow Water Depth (Inches) as Percent of that in 1943	1942	Avg.
Owyhee River	1	2.2	14.8				15		
	1	2.2		6.6				33	
	1	2.2			9.9	3			22
Malheur River	3	2.6	12.1				21		
	3	2.6		4.7				55	
	3	2.6			6.3	6-13			41
Burnt River	3	3.0	12.6				24		
	3	3.0		5.3				57	
	3	3.0			6.5	5-10			46
Powder River	4	3.7	15.8				23		
	4	3.7		6.1				61	
	4	3.7			7.9	5-8			47
Pine Creek	1	9.8	33.6				29		
	1	9.8		15.3				64	
	1	9.8			20.3	6			48
Grande Ronde River	6	7.4	22.2				33		
	7	6.8		9.7				70	
	7	6.8			13.0	2-15			52
Walla Walla River	1	8.4	28.8				29		
	1	8.4		7.0				120	
	1	8.4			16.0	12			52
Umatilla River	4	4.4	15.5				28		
	4	4.4		4.7				94	
	4	4.4			8.8	5-15			50
Willow Creek	1	3.7	10.6				35		
	-	-		-				-	
	1	3.7			7.3	14			51
John Day River	8	3.5	13.5				26		
	7	3.4		5.3				64	
	8	3.5			6.8	5-14			51
Deschutes River	3	7.6	34.7				22		
	4	6.8		9.4				72	
	6	6.1			12.1	4-13			50
Crooked River	3	1.9	11.3				17		
	3	1.9		4.9				39	
	3	1.9			5.4	6-14			35

Tributary Drainage	Number Of Snow Courses Averaged	Average Water Depth in Snow Cover (Inches) 1944	1943	1942	Avg. Past Yrs. of Record	Yrs. of Record	1944 Snow Water Depth (Inches) as Percent of that in 1943	1942	Avg.
Sandy River	2	10.0	43.6				23		
	2	10.0		13.2				76	
	2	10.0			19.8	6			50
Clackamas River	2	2.8	23.8				12		
	1	3.7		6.2				60	
	2	2.8			8.4	5-6			33
Willamette River	6	5.2	30.5				17		
	7	6.1		8.7				70	
	9	6.2			12.5	3-13			50
Harney Basin	4	2.1	9.5				22		
	4	2.1		3.8				55	
	4	2.1			4.8	8-11			44
Silver Lake Basin	1	1.6	7.9				20		
	-	-		-				-	
	1	1.6			3.6	4			44
Warner Lake	1	3.8	16.4				23		
	1	3.8		5.5				69	
	1	3.8			7.8	5			49
Umpqua River	5	5.9	22.2				27		
	5	5.9		6.0				98	
	5	5.9			10.4	5-7			57
Upper Rogue River	10	6.1	17.0				36		
	13	7.9		9.3				85	
	13	7.9			11.3	4-12			70
Applegate River	4	10.6	18.8				56		
	4	10.6		12.6				84	
	4	10.6			13.6	8			78
Illinois River	2	6.1	12.4				49		
	2	6.1		7.0				87	
	2	6.1			9.0	6-8			68
Klamath Lake Basin	14*	4.3	12.7				34		
	18*	5.9		7.1				83	
	18*	5.9			8.8	4-17			67
Goose Lake Basin	3*	3.1	11.6				27		
	4*	3.1		5.5				56	
	4*	3.1			5.8	5-14			53

* Including Copco water measurement stations.

STATUS OF WATERSHED SOIL MOISTURE

Watershed soils not snow covered are generally frozen to greater than usual depth. Higher watershed soils, snow covered since December, are generally unfrozen.

Following are shown soil moisture contents existing October 20-26, 1943, at Southern Oregon Watershed Soil Moisture Stations. Customary fall sampling of all other Oregon watershed soil moisture stations was suspended due to lack of funds.

	Location				1943 Fall Soil Moisture as Percentage of Soil Dry Weight										
									One Year Ago			Avg. for past yrs. of Record			
TRIBUTARY BASINS	Sec.	Twp.	Range	Elev.	Date \ Depth (ft.)	0-3	3-5 or 3-6	0-5 or 0-6	0-3	3-5 or 3-6	0-5 or 0-6	0-3	3-5 or 3-6	0-5 or 0-6	Yrs. of Record
UMPQUA RIVER															
Whaleback	3	31S	2E	5140	10-26	65.3	47.3	56.3	59.8	47.6	53.7	56.6	47.2	51.9	7
ROGUE RIVER															
Annie Spring	19	31S	6E	6018	10-22	15.4	9.5	12.4	26.4	14.8	20.6	22.9	14.7	18.8	7
Whaleback	3	31S	2E	5140	10-26	65.3	47.3	56.3	59.8	47.6	53.7	56.6	47.2	51.9	7
Hyatt Prairie	15	39S	3E	4900	10-25	32.1	50.3	41.2	-	-	-	31.4	48.6	40.0	6
Fish Lake	3	37S	4E	4865	10-20	35.0	44.4	39.7	-	-	-	40.5	49.0	44.8	6
Siskiyou Summit	17	40S	2E	4630	10-25	31.0	-	-	-	-	-	27.4	-	-	6
KLAMATH RIVER															
Annie Spring	19	31S	6E	6018	10-22	15.4	9.5	12.4	26.4	14.8	20.6	22.9	14.7	18.8	7
Hyatt Prairie	15	39S	3E	4900	10-25	32.1	50.3	41.2	-	-	-	31.4	48.6	40.0	6

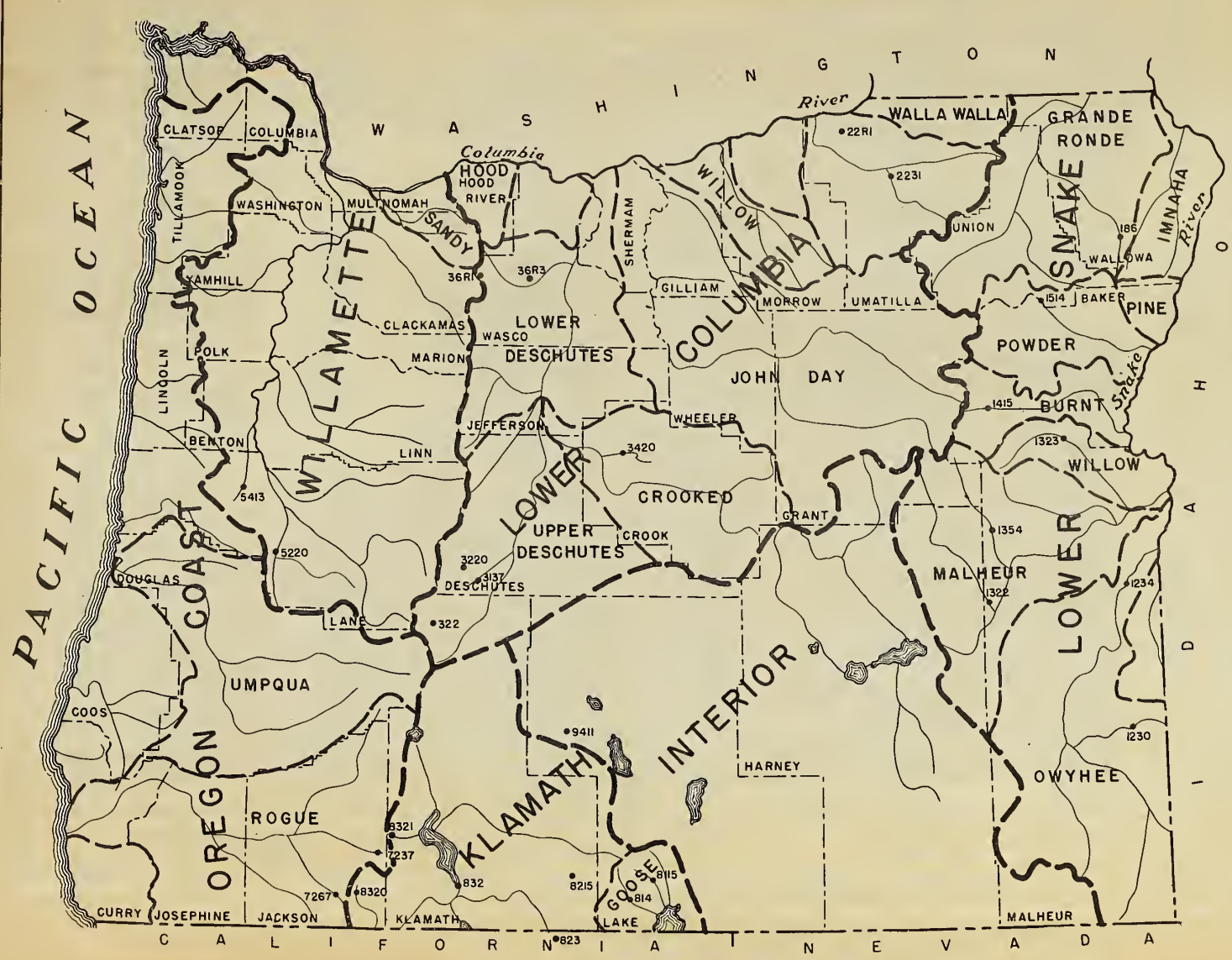
STATUS OF RESERVOIR STORAGE AS OF FEBRUARY FIRST

In the following tabulation, water storage in acre feet in important Oregon reservoirs as of about February 1, 1944, is compared with storage as of approximately the same date in 1943, 1942, 1941 and 1940.

Storage Reservoir	Stream Basin	Capacity Acre Ft.	Acre Feet in Storage: About 2-1-44	About 2-1-43	About 2-1-42	About 2-1-41	About 2-1-40
Agency Valley	Malheur	60,000	40,762	24,300	44,520	44,690	40,900
Antelope	Owyhee	36,550	0	No report	6,500[a]	3,707	Empty
Clear Lake	Lost River	440,240[b]	293,340[b]	252,030[b]	249,380[b]	204,920[b]	183,000[b]
Cold Springs	Umatilla	50,000	26,000	36,500	28,850	34,200	14,750
Cottage Grove	Willamette	30,000[b]	0 [c]	0 [c]	-	-	-
Cottonwood	Goose Lake	4,160	0	0 [c]	-	Empty	47
Crane Prairie	Deschutes	50,000	43,720	30,000	17,470	19,780	29,210
Crescent Lake	Deschutes	80,000	51,790	30,000	21,260	22,700	30,300
Drew Creek	Goose Lake	62,500	35,000	42,794	49,500	29,400	23,050
Emigrant Gap	Rogue	8,200	1,534	5,628[c]	6,468	7,285	5,569
Fern Ridge	Willamette	95,000[b]	0 [c]	72,550[b]	-	-	-
Fish Lake	Rogue	7,720	6,886	4,401	3,340	3,334	3,902
Fourmile Lake	Klamath[d]	14,000	11,516	3,802	2,894	2,303	7,367
Gerber	Klamath	94,000[b]	44,650[b]	39,320[b,c]	43,380[b]	44,330[b]	36,370[b]
Hyatt Prairie	Klamath[d]	16,000	6,513	8,607	5,880	2,417	2,929
McKay	Umatilla	74,000	36,800	51,720[c]	55,670	24,980	15,120
Ochoco	Crooked	47,500	22,980	37,920[c]	9,620	3,620	3,740
Owyhee	Owyhee	715,000[b]	481,330[b]	623,640[b,c]	510,790[b]	453,780[b]	392,760[b]
Thief Valley	Powder	17,400	8,954	15,140	13,900	16,070	5,600
Unity	Burnt	25,260	5,232	9,465	11,680	12,400	8,050
Upper Klamath	Klamath	524,800[b]	250,900[b]	407,200[b,c]	350,400[b]	233,000[b]	265,800[b]
Wallowa Lake	Wallowa	40,920	30,820	25,240	32,040	16,960	10,930
Warmsprings	Malheur	190,000	111,760	161,000	140,590	114,000	75,260
Wickiup	Deschutes	180,000	0	4,700	-	-	-
Willow Creek	Malheur	26,000	No report	11,600	No report	4,250	600[e]

a - Estimated
b - Available for use
c - Water being by-passed, or water level being lowered, to provide space for anticipated inflow.
d - By ditch to Rogue River side
e - Approximate

IMPORTANT OREGON RESERVOIRS



RESERVOIR NAME	NUMBER
Agency Valley	1354
Antelope	1230
Clear Lake	823
Clear Lake	36R1
Cold Springs	22R1
Cottage Grove	5220
Cottonwood	8115
Crane Prairie	3220
Crescent Lake	322
Drew Creek	814
Emigrant Gap	7267
Fern Ridge	5413
Fish Lake	7237
Four Mile Lake	8321
Gerber	8215
Hyatt Prairie	8320
McKay	2231
Ochoco	3420
Owyhee	1234
Rock Creek	36R3
Thief Valley	1514
Thompson Valley	9411
Unity	1415
Upper Klamath Lake	832
Wallowa Lake	186
Warm Springs	1322
Wickiup	3137
Willow Creek No. 3	1323

25 0 25 50
SCALE IN MILES
1-27-43

U.S. DEPT. OF AGRICULTURE

SOIL CONSERVATION SERVICE
7-L-3060

INDEX TO SNOW COURSES

Number	Name	Elev.
	UPPER COLUMBIA DRAINAGE Lower Snake in Oregon	
	OWYHEE RIVER	
Nev.1	Big Bend	6800
Nev.2	Buckskin, Lower	6800
Nev.3	Buckekin, Upper	8200
952	Fish Creek	7900
Nev.5	Fry Canyon	6800
Nev.6	Gold Creek Ranger Sta.	6600
Nev.7	Granite Peak	8600
Nev.8	Jack Creek, Lower	7000
Nev.9	Jack Creek, Upper	7800
Nev.10	Martin Creek	7000
Nev.11	Rodeo Flat	7000
Ida.12	Silver City	6400
951	Silvies	6900
Ida.13	South Mountain	5100
Nev.15	Taylor Canyon	5200
	MALHEUR RIVER	
133	Blue Mountain Spring	5900
137	Crane Prairie	5375
136	Lake Creek	5120
134	Rock Spring	5100
135	Stinking Water	4800
	BURNT RIVER	
141	Blue Mountain Summit	5098
156	Dooley Mountain	5430
142	Tipton	5100
	POWDER RIVER	
155	Anthony Lake	7125
154	Bourne	5800
156	Dooley Mountain	5430
151B	Eilertson Meadowe	5400
249	Gold Center	5340
184	Summit Springs	6000
185	Taylor Green	5740
	PINE CREEK	
161	Schneider Meadowe	5400
	GRANDE RONDE RIVER	
183	Aneroid Lake	7480
155	Anthony Lake	7125
188	Beaver Reservoir	5340
187	Camp Careon	5970
186	Moss Spring	5860
248	Schoolmarm	4775
184	Summit Springs	6000
185	Taylor Green	5740
212	Tollgate	5070

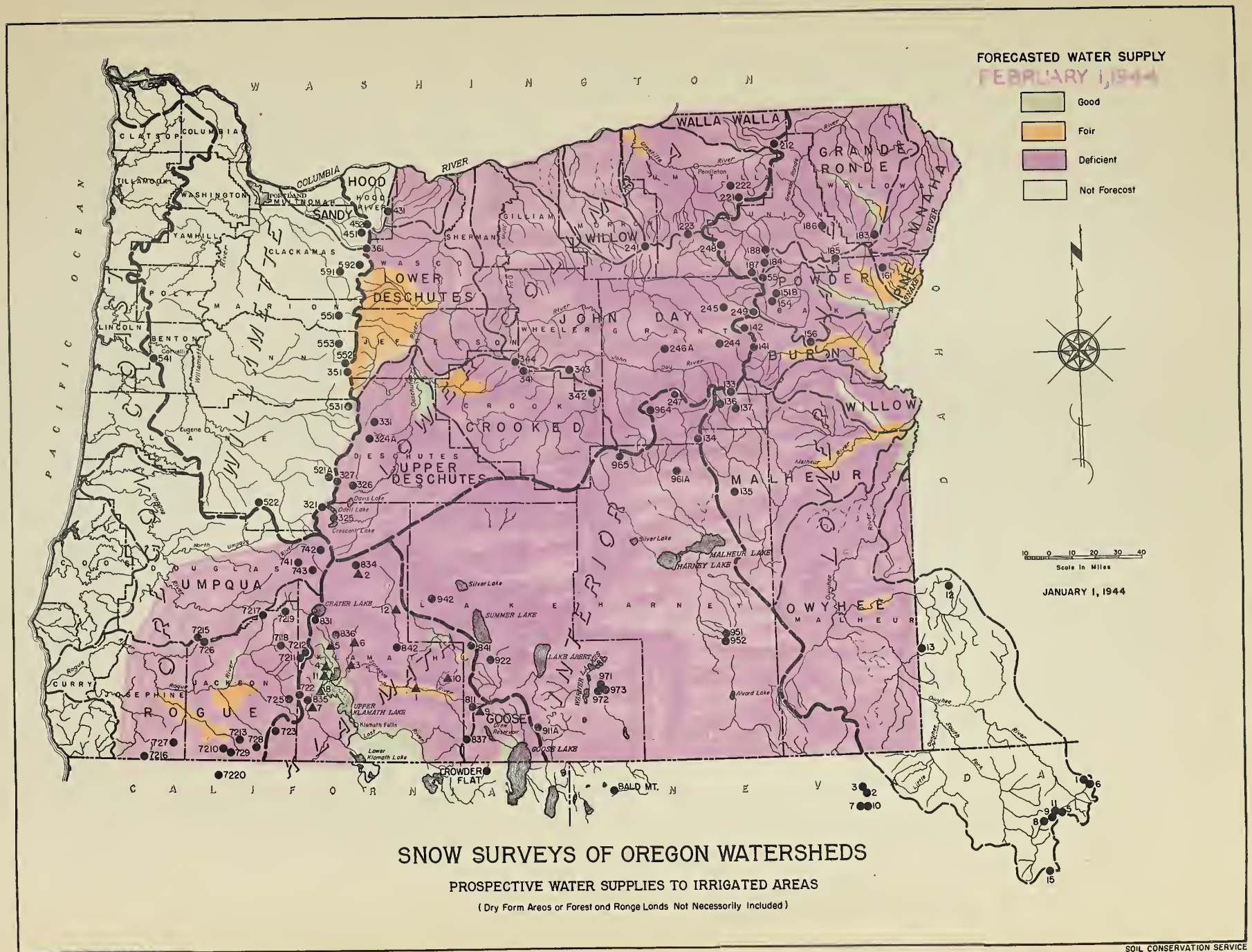
Number	Name	Elev.
	LOWER COLUMBIA DRAINAGE	
	WALLA WALLA RIVER	
212	Tollgate	5070
	UMATILLA RIVER	
222	Emigrent Springs	3925
223	Lucky Strike	5050
221	Meacham	4300
212	Tollgate	5070
	WILLOW CREEK	
241	Arbuckle Mountain	5400
	JOHN DAY RIVER	
241	Arbuckle Mountain	5400
246A	Beech Creek Summit	4800
133	Blue Mountain Spring	5900
141	Blue Mountain Summit	5098
244	Dixie Springs	6650
249	Gold Center	5340
964	Izee Summit	5293
245	Olive Lake	6000
248	Schoolmarm	4775
965	Snow Mountain	6300
247	Starr Ridge	5156
	DESCHUTES RIVER	
326	Caldwell Ranch	4400
321	Cascade Summit	4880
327	Charlton Lake	5750
361	Clear Lake	3500
325	Crescent Lake	4760
343	Derr	5670
351	Hogg Pass	4755
344	Marke Creek	4540
324A	New Dutchman Flat	6400
341	Ochoco Meadows	5200
965	Snow Mountain	6300
342	Tamarack	4800
331	Three Creeks Meadows	5600
	HOOD RIVER	
431	Brooks Meadows	4300
	SANDY RIVER	
361	Clear Lake	3500
452	Phlox Point - Mt. Hood	5600
451	Still Creek	3700
	CLACKAMAS RIVER	
592	Clackamas Lake	3400
591	Peavine Ridge	3500

Number	Name	Elev.
	WILLAMETTE RIVER	
551	Breitenbush	2325
321	Cascade Summit	4880
522	Champion	4500
327	Charlton Lake	5750
351	Hogg Pass	4755
531	McKenzie	4800
553	Marion Forks	2730
541	Mary's Peak	3620
552	Santiam Junction	3990
521A	Waldo Lake	5500
	KLAMATH LAKE BASIN	
831	Annie Spring	6018
722	Billie Creek Divide	6000
834	Chemult No. 1	4760
Calif.	Crowder Flat	5200
723	Hyatt Prairie Reservoir	4900
835	Lake of the Woods	4960
811	Quartz Mountain	5320
7211	Seven Lakes No. 1	6800
7212	Seven Lakes No. 2	6200
837	Strawberry	5600
841	Summer Rim	7200
836	Sun Mountain	5350
842	Taylor Butte	5100
	GOOSE LAKE BASIN	
911A	Camas Creek	5720
811	Quartz Mountain	5320
837	Strawberry	5600

INDEX TO CALIFORNIA-OREGON POWER COMPANY SNOW WATER STATIONS

Number	Name	Elev.
	KLAMATH LAKE BASIN	
1	Beatty	4300
2	Chemult	4761
3	Chiloquin	4187
4	Crystal	4200
5	Fort Klamath	4150
6	Kirk	4533
7	Lake of the Woods	4960
8	Pelican	4200
9	Quartz Mountain	5504
10	Richardson Ranch	4800
11	Rocky Point	4150
12	Yamsey	4600
	GOOSE LAKE BASIN	
9	Quartz Mountain	5504

Number	Name	Elev.
	INTERIOR DRAINAGE	
	SILVER LAKE	
942	Silver Creek	4900
	CHEWAUCAN RIVER	
922	Mill Creek	6200
	HARNEY BASIN	
973	Deer Creek	6670
952	Fish Creek	7900
971	Hart Mountain	6350
961A	Idylwild Park	5200
964	Izee Summit	5293
134	Rock Spring	5100
951	Silvies	6900
965	Snow Mountain	6300
247	Starr Ridge	5156
	WARNER LAKE	
911A	Camas Creek	5720
	GUANO LAKE	
Nev.	Bald Mountain	6720
972	Guano Creek	6480
	WEST COAST DRAINAGE	
	UMPQUA RIVER	
522	Champion	4500
743	Diamond Lake	5315
726	Goolaway Gap	3000
7215	Goolaway Mountain	3730
742	N.Umpqua near Lake Creek	4215
741	Trap Creek	3800
7217	Whaleback	5140
	ROGUE RIVER	
7216	Althouse	4400
831	Annie Spring	6018
729	Big Red Mountain	6500
722	Billie Creek Divide	6000
725	Fish Lake	4865
726	Goolaway Gap	3000
7215	Goolaway Mountain	3730
727	Grayback Peak	6000
723	Hyatt Prairie Reeervoir	4900
7210	Little Red Mountain	6500
7220	Scragg Mountain	6200
7211	Seven Lakes No. 1	6800
7212	Seven Lakes No. 2	6200
7219	Silver Burn	3720
728	Siskiyou Summit	4630
7218	South Fork Canal	3500
7213	Wagner Butte	6900
7217	Whaleback	5140



SNOW SURVEYS OF OREGON WATERSHEDS

PROSPECTIVE WATER SUPPLIES TO IRRIGATED AREAS

(Dry Farm Areas or Forest and Range Lands Not Necessarily Included)

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE
7-L-8563

STATUS OF VALLEY PRECIPITATION AS OF OCTOBER 1 TO DATE

Month	Oct.		Nov.		Dec.		Jan.		Period	
Section	P	D	P	D	P	D	P	D	P	D
S.E.	1.53	+0.77	0.46	-0.54	0.46	-0.68	0.8	-0.5	3.25	-0.95
S.C.	2.00	+0.98	0.81	-0.89	0.71	-1.16	1.3	-0.6	4.82	-1.67
N.C.	1.93	+1.14	0.89	-0.68	0.51	-0.87	0.6	-0.9	3.93	-1.31
Col. Riv.	2.21	+1.20	0.60	-1.26	0.84	-0.74	0.7	-1.0	4.35	-1.80
Wal. Mts.	1.43	-0.26	0.74	-0.97	0.93	-0.85	0.1	-1.3	3.20	-3.38
Blue Mts.	1.89	+0.40	0.91	-1.31	0.97	-1.11	0.4	-1.7	4.17	-3.72
Southern	3.70	+1.89	1.58	-2.22	1.25	-2.39	2.6	-1.1	9.13	-3.82
Willamette	7.68	+3.79	3.85	-4.22	3.75	-4.38	5.1	-2.7	20.38	-7.51
Area	2.80	+1.24	1.23	-1.51	1.18	-1.52	1.4	-1.2	6.65	-3.02

P - Inches precipitation. D - Inches departure from normal.

S.E. - Southeastern Oregon range lands, Harney and Malheur Counties.

S.C. - Southcentral Oregon range lands, Lake County and Klamath County, except the Cascade Mountains.

N.C. - Northcentral Oregon wheat and range lands, Crook, Deschutes, Jefferson, Wheeler and part of Grant Counties.

Col. Riv. - Columbia River area, wheat and range lands, Gilliam, Morrow, Sherman, Wasco and part of Umatilla Counties.

Wal. Mts. - Wallowa Mountain area, forest and range lands, Wallowa and part of Baker County.

Blue Mts. - The Blue Mountain forest and range area, Union and parts of Baker, Grant and Umatilla Counties.

Southern - Southern Oregon irrigated section, Jackson and Josephine Counties.

Willamette - Parts of Polk, Benton, Yamhill, Washington, Lane and all of Linn, Marion, Clackamas and Multnomah Counties.

Note: Data for the last month shown above are preliminary only, as they are based on a few stations only. Data for earlier months have been corrected to include all the stations in climatological data for the area.

TRIBUTARY BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	About Feb. 1, 1944 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (1-1-44)	One Year Ago (2-1-43)	Two Years Ago (2-1-42)	Avg. for past yrs. of record	Yrs. of record
UPPER COLUMBIA DRAINAGE													
LOWER SNAKE IN OREGON													
OWYHEE RIVER[b]													
South Mountain No. 2	Idaho	35	7S	5W	6340	1-31	12.1	2.2	1.3	14.8	6.6	9.9	3
MALHEUR RIVER													
Blue Mountain Springs	133	21	15S	35E	5900	1-31	18.5	[a] 4.0	2.0	23.0	6.8	10.0	13
Rock Spring	134	23	18S	32E	5100	1-31	11.6	1.8	0.5	8.3	3.1	5.0	8
Stinking Water	135	33	21S	34E	4800	2-5	12.1	2.2	0.0	4.9	4.1	3.9	6
BURNT RIVER													
Dooley Mountain	156	32	11S	40E	5430	1-31	13.7	2.8	2.2	12.0	6.4	6.7	5
Tipton	142	34	10S	35½E	5100	1-28	13.4	3.8	-	13.4	4.8	7.2	10
Blue Mountain Summit	141	6	12S	36E	5098	1-29	14.1	2.5	1.6	12.4	4.8	5.7	9
POWDER RIVER													
Bourne	154	33	8S	37E	5800	2-1	18.6	4.6	3.7	19.6[c]	7.5	9.2	8
Dooley Mountain	156	32	11S	40E	5430	1-31	13.7	2.8	2.2	12.0	6.4	6.7	5
Eilertson Meadows	151B	18	8S	38E	5400	1-31	16.8	3.2	1.7	17.0	4.5	7.8	6
Gold Center	249	21	9S	36E	5340	1-31	18.7	4.3	3.9	14.5	5.9	7.9	5

a - Telegraphic; subject to revision.
b - Measurements at Silver City have been suspended for duration of the war.
c - Estimated.

TRIBUTARY BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About Feb. 1, 1944 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (1-1-44)	One Year Ago (2-1-43)	Two Years Ago (2-1-42)	Avg. for past yrs. of record	Yrs. of record
PINE CREEK													
Schneider Meadows	161	35	6S	45E	5400	1-28	36.7	9.8	-	33.6	15.3	20.3	6
GRANDE RONDE RIVER													
Aneroid Lake	183	16	4S	45E	7480	1-30	39.7	12.2	-	28.6	22.4	18.5	14
Aneroid Lake No. 2	183A	16	4S	45E	7000	1-30	32.3	9.3	-	27.1	17.1	22.1	2
Camp Carson	187	33	6S	36E	5970	2-2	17.7	3.5	-	-	4.8	4.8	2
Moss Spring	186	27	3S	41E	5860	1-31	28.0	7.0	4.8	26.0	8.2	14.5	6
Beaver Reservoir	188	8	5S	37E	5340	1-30	17.4	a 4.5	2.0	11.8	4.7	9.4	5
Tollgate	212	32	4N	38E	5070	1-29	31.0	8.4	-	28.8	7.0	16.0	12
Meacham	221	24&25	1S	35E	4300	1-29	15.4	3.1	-	10.6	3.5	5.8	15
LOWER COLUMBIA DRAINAGE													
WALLA WALLA RIVER													
Tollgate	212	32	4N	38E	5070	1-29	31.0	8.4	-	28.8	7.0	16.0	12
UMATILLA RIVER													
Tollgate	212	32	4N	38E	5070	1-29	31.0	8.4	-	28.8	7.0	16.0	12
Lucky Strike	223	28	3S	32E	5050	1-28	21.2	4.5	-	13.5	6.3	7.5	5
Meacham	221	24&25	1S	35E	4300	1-29	15.4	3.1	-	10.6	3.5	5.8	15
Emigrant Springs	222	29	1N	35E	3925	1-29	9.7	1.7	-	9.0	2.1	5.7	15
WILLOW CREEK													
Arbuckle Mountain	241	33	4S	29E	5400	2-1	18.0	3.7	-	10.6	-	7.3	14

a - Telegraphic; subject to revision.

TRIBUTARY BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About Feb. 1, 1944 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (1-1-44)	One Year Ago (2-1-43)	Two Years Ago (2-1-42)	Avg. for past yrs. of record	Yrs. of record
JOHN DAY RIVER													
Olive Lake	245	14	9S	33½E	6000	1-30	20.9	4.6	3.3	16.9	7.6	10.0	8
Blue Mountain Springs	133	21	15S	35E	5900	1-31	18.5	4.0	2.0	23.0	6.8	10.0	13
Arbuckle Mountain	241	33	4S	29E	5400	2-1	18.0	3.7	-	10.6	-	7.3	14
Gold Center	249	21	9S	36E	5340	1-31	18.7	4.3	3.9	14.5	5.9	7.9	5
Izee Summit	964	28	16S	29E	5293	1-31	13.8 a	3.0	2.0	13.5	4.9	5.9	8
Starr Ridge	247B	20	15S	31E	5150	1-31	11.6 a	2.4	1.5	9.3	3.7	4.0	8
Blue Mountain Summit	141	6	12S	36E	5098	1-29	14.1	2.5	1.6	12.4	4.8	5.7	9
Beech Creek Summit	246A	4	12S	30E	4800	2-1	10.3 a	3.3	1.9	7.6	3.6	4.0	7
DESCHUTES RIVER													
Charlton Lake	327	23	21S	6E	5750	2-2	27.5	6.6	-	-	-	9.0	4
Derr	343	14	13S	23E	5670	1-31	11.6	2.6	-	11.5	5.1	5.8	6
Three Creeks Meadows	331	3	17S	9E	5600	1-31	15.0	4.1	-	-	6.6	11.2	12
Ochoco Meadows	341	21	13S	20E	5200	1-31	13.1	2.7	-	13.7	5.9	6.8	14
Cascade Summit	321	7	23S	6½E	4880	1-30	27.2	7.3	-	37.0	10.6	19.0	13
Crescent Lake	325	11	24S	6E	4760	1-30	11.8	3.2	-	19.0	5.0	8.6	8
Hogg Pass	351	24	13S	7½E	4755	1-31	38.0	12.4	6.9	48.0	15.5	20.9	6
Marks Creek	344	25	12S	19E	4540	1-29	1.4	0.3	-	8.7	3.6	3.5	6
Caldwell Ranch	326	30	21S	8E	4400	2-2	14.6	3.2	-	-	-	3.9	4
SANDY RIVER													
Phlox Point-Mt. Hood	452	6	3S	9E	5600	2-7	50.0 a	15.0	7.5	59.7	20.6	29.9	6
Still Creek	451	25	3S	8½E	3700	2-8	17.3 a	5.0	0.0	27.6	5.8	9.6	6
CLACKAMAS RIVER													
Peavine Ridge	591	14&15	6S	7E	3500	2-3	13.4	3.7	1.0	25.5	6.2	9.2	6
Clackamas Lake	592	35	5S	8½E	3400	1-29	7.7	2.0	-	22.0	-	7.5	5

a - Telegraphic; subject to revision.

TRIBUTARY BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About Feb. 1, 1944 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (1-1-44)	One Year Ago (2-1-43)	Two Years Ago (2-1-42)	Avg. for past yrs. of record	Yrs. of record
WILLAMETTE RIVER													
Charlton Lake	327	23	21S	6E	5750	2-2	27.5	6.6	-	-	-	9.0	4
Waldo Lake	521A	15	21S	6E	5500	2-1	23.9	6.1	-	-	-	7.7	4
Cascade Summit	321	7	23S	6½E	4880	1-30	27.2	7.3	-	37.0	10.6	19.0	13
McKenzie	531	35	15S	7½E	4800	1-31	33.5	11.4	-	-	18.0	14.7	3
Hogg Pass	351	24	13S	7½E	4755	1-31	38.0	12.4	6.9	48.0	15.5	20.9	6
Champion	522	12	23S	1E	4500	2-2	24.2	4.4	-	30.1	3.0	13.3	5
Santiam Junction	552	14	13S	7E	3990	1-31	12.8	3.8	2.8	29.1	8.8	14.7	3
Mary's Peak	541	21	12S	7W	3620	1-28	6.8	2.0	-	19.4	0.0	4.8	4
Marion Forks	553	28	11S	7E	2730	1-31	4.2	1.4	0.9	19.2	5.0	8.7	3
INTERIOR DRAINAGE													
SILVER LAKE													
Silver Creek	942	25&26	29S	13E	4900	1-31	6.6	1.6	-	7.9	-	3.6	4
HARNEY BASIN													
Izee Summit	964	28	16S	29E	5293	1-31	13.8 a	3.0	2.0	13.5	4.9	5.9	8
Idylwild Camp	961A	33	20S	31E	5200	1-31	9.0	1.2	0.5	6.9	3.7	4.1	11
Starr Ridge	247B	20	15S	31E	5150	1-31	11.6 a	2.4	1.5	9.3	3.7	4.0	8
Rock Spring	134	23	18S	32E	5100	1-31	11.6	1.8	0.5	8.3	3.1	5.0	8
WARNER LAKE													
Camas Creek	911A	5	39S	21E	5720	1-29	16.5	3.8	-	16.4	5.5	7.8	5

a - Telegraphic; subject to revision.

TRIBUTARY BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About Feb. 1, 1944 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (1-1-44)	One Year Ago (2-1-43)	Two Years Ago (2-1-42)	Avg. for past yrs. of record	Yrs. of record
WEST COAST DRAINAGE													
UMPQUA RIVER													
Diamond Lake	743	29	27S	6E	5315	1-30	26.8	7.4	2.6	29.8	6.8	12.3	7
Whaleback	7217	3	31S	2E	5140	1-30	39.7	13.9	-	39.4	20.2	19.0	6
Champion	522	12	23S	1E	4500	2-1	24.2	4.4	-	30.1	3.0	13.3	5
Goolaway Mountain	7215	30	32S	3W	3730	1-28	10.3	2.3	-	7.1	Trace	5.3	7
Goolaway Gap	726	32	32S	3W	3000	1-28	5.1	1.3	-	4.8	0.0	2.2	7
ROGUE RIVER													
Wagner Butte	7213	1	40S	1W	6900	2-7	24.4	8.7	-	14.6	12.0	9.6	8
Seven Lakes No. 1	7211	3	34S	5E	6800	1-27	62.2	20.6	-	-	22.3	23.8	4
Big Red Mountain	729	31	40S	1W	6500	2-3	48.4	12.7	-	22.4	14.5	17.6	8
Little Red Mountain	7210	25	40S	2W	6500	2-4	35.5	9.6	-	16.1	10.4	11.6	8
Seven Lakes No. 2	7212	26	33S	5E	6200	1-27	44.0	13.3	-	-	14.7	16.5	4
Annie Spring	831	19	31S	6E	6018	1-26	46.5	14.3	-	40.8	18.1	27.1	11
Billie Creek Divide	722	30	36S	5E	6000	1-31	29.8	8.3	3.3	-	11.2	14.7	12
Grayback Peak	727	9	40S	5W	6000	2-2	33.1	11.6	-	21.9	13.5	15.8	8
Whaleback	7217	3	31S	2E	5140	1-30	39.7	13.9	-	39.4	20.2	19.0	6
Hyatt Prairie Reservoir	723	15	39S	3E	4900	2-4	21.4	6.4	4.2*	11.0	5.6	6.7	9
Fish Lake	725	3	37S	4E	4865	2-1	14.8	4.6	2.2	16.0	6.3	9.0	10
Siskiyou Summit	728	17	40S	2E	4630	1-30	14.2	3.8	4.2	11.8	4.6	5.2	7
Althouse	7216	17	41S	7W	4400	2-1	3.5	0.6	-	2.8	0.5	2.2	6
Goolaway Mountain	7215	30	32S	3W	3730	1-28	10.3	2.3	-	7.1	Trace	5.3	7
Silver Burn	7219	30	30S	4E	3720	2-1	16.9	5.3	0.5	16.6	5.7	6.3	6
South Fork Canal	7218	12	33S	3E	3500	1-31	Trace	Trace	0.0	7.4	Trace	1.8	6
Goolaway Gap	726	32	32S	3W	3000	1-28	5.1	1.3	-	4.8	0.0	2.2	7

* Measurement taken January 10.

TRIBUTARY BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About Feb. 1, 1944 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (1-1-44)	One Year Ago (2-1-43)	Two Years Ago (2-1-42)	Avg. for past yrs. of record	Yrs. of record
KLAMATH LAKE BASIN													
Seven Lakes No. 1	7211	3	34S	5E	6800	1-27	62.2	20.6	-	-	22.3	23.8	4
Seven Lakes No. 2	7212	26	33S	5E	6200	1-27	44.0	13.3	-	-	14.7	16.5	4
Annie Spring	831	19	31S	6E	6018	1-26	46.5	14.3	-	40.8	18.1	27.1	11
Billie Creek Divide	722	30	36S	5E	6000	1-31	29.8	8.3	3.3	-	11.2	14.7	12
Strawberry	837	4	40S	16E	5600	1-23	10.8	3.0	-	-	6.1	4.9	5
Quartz Mountain 2/		33	37S	16E	5504	1-31	13.0	3.3	0.3	9.1	6.5	5.2	14
Sun Mountain	836	22	32S	7½E	5350	1-29	28.8	8.2	2.1	35.2	12.1	16.8	6
Quartz Mountain	811	2	38S	16E	5320	1-31	12.0	2.3	0.7	9.4	3.8	5.1	14
Crowder Flat (Calif.)		30	47N	11E	5200	1-23	8.3	1.6	-	7.0	2.3	3.1	5
Taylor Butte	842	16	33S	11E	5100	1-24	12.4	2.3	-	8.2	3.7	3.6	7
Hyatt Prairie Reservoir	723	15	39S	3E	4900	2-4	21.4	6.4	4.2*	11.0	5.6	6.7	9
Chemult No. 1	834	21	27S	8E	4760	2-1	18.4	4.2	3.4**	20.5	6.3	8.1	7
Kirk 2/		1	33S	7E	4533	1-31	14.0	4.1	1.2	9.0	4.1	5.3	17
Beatty 2/		22	36S	12E	4300	1-31	0.0	0.0	0.0	2.1	0.0	0.9	16
Crystal 2/		26	34S	6E	4200	1-31	17.0	4.3	0.8	8.2	4.5	6.3	14
Pelican 2/		10	36S	6E	4200	1-31	13.5	3.4	0.5	9.0	2.9	3.9	17
Chiloquin 2/		34	34S	7E	4187	1-31	9.0	2.4	Trace	3.8	2.0	2.3	14
Fort Klamath 2/		22	33S	7½E	4150	1-31	13.8	3.6	0.3	4.4	2.1	4.1	17
GOOSE LAKE BASIN													
Camas Creek	911A	5	39S	21E	5720	1-29	16.5	3.8	-	16.4	5.5	7.8	5
Strawberry	837	4	40S	16E	5600	1-23	10.8	3.0	-	-	6.1	4.9	5
Quartz Mountain 2/		33	37S	16E	5504	1-31	13.0	3.3	0.3	9.1	6.5	5.2	14
Quartz Mountain	811	2	38S	16E	5320	1-31	12.0	2.3	0.7	9.4	3.8	5.1	14

* Measurement taken January 10.
** Measurement taken January 9.